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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/420,720	10/20/1999	JENS-UWE JURGENSEN	450117-02106	3195

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EXAMINER

NGUYEN, DUNG X

ART UNIT	PAPER NUMBER
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2631

DATE MAILED: 09/24/2003

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/420,720

Applicant(s)

JURGENSEN ET AL.

Examiner

Dung X Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 July 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 - 16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3,4,8 -10,12, and 13 is/are rejected.
- 7) ☒ Claim(s) 2, 5 - 7, 11, and 14 - 16 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 October 1999 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

Response to Arguments

1. Applicant's arguments filed on July 15, 2003 have been fully considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. **Claims 1, 3, 4, 8, 9, 10, 12, and 13 are rejected** under 35 U.S.C. 103(a) as being unpatentable over Bottomley et al. (US patent # 6,005,887), and further in view of Friedlander et al. (US patent # 6,501,747).

Regarding claim 1, Bottomley et al. discloses (figure 8):

- Despreading unit 202 for despreading an input data stream (column 11, lines 12 – 17);
- A set of k descrambling units 206, 208 per despreading unit 202, k being an interger larger than 1, k descrambling units being supplied with the output signal of despreading unit 202.

Bottomley et al. differs from the instant claimed invention that it does not state that the input data stream with the different spreading codes. However, Friedlander et al. discloses (figure 2) that the M antenna streams are de-spread with long and short codes supplied from code

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generator 230 (column 9, lines 14 – 20). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to implement the disclosure of Friedlander et al. into Bottomley et al. to provide an accurate channel estimation and demodulation on both the forward and reverse links.

Regarding claim 3, Friedlander et al. further discloses (figure 3) that estimator 310 is provided for generating channel estimation values.

Regarding claim 4, Friedlander et al. further discloses (figure 3) that PSC 110 is provided for supplying correlation based data both to the of the receiver and of the channel estimator 310.

Regarding claims 8 & 9, respectively, Friedlander et al. further discloses that its system is used in PCS and cellular CDMA (or mobile communications device) networks for capacity enhancement (column 1, lines 17 – 21).

Regarding claim 10, the limitations are analyzed in the same manner set forth as claim 1.

Regarding claim 12, the limitations are analyzed in the same manner set forth as claim 3.

Regarding claim 13, the limitations are analyzed in the same manner set forth as claim 4.

Conclusion

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Stirling-Gallacher et al. (U.S. Patent No. 6,570,889 B1) discloses a transmitting method and its corresponding apparatus for increasing the flexibility of code assignment.

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Allowable Subject Matter

5. Claims 2, 5 - 7, 11, and 14 - 16 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Contact Information

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dung X. Nguyen whose telephone number is (703) 305-4892. The examiner can normally be reached on Monday through Friday from 8:30 AM to 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Ghayour Mohamad H. can be reached on (703) 306-3034. The fax number for this group is (703) 872-9314.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-4700.

DXN

August 18, 2003

M. Ghayour
MOHAMMAD H. GHAYOUR
PRIMARY EXAMINER